



SRS Citizens Advisory Board

Environmental Remediation &
Waste Management Subcommittee

Meeting Record

May 2, 1996

Martinez, Ga.

The ER & WM Subcommittee of the SRS CAB met on Thursday, May 2, 1996 at the Savannah Rapids Pavilion at 5:00 p.m. Subcommittee members present included Bill Lawless and Kathryn May, Subcommittee Co-Chairs, and subcommittee members Anne Brown, Deborah Simone, and Arthur Belge. Walt Joseph, the CAB facilitator, also attended. Leigh Ann Williams attended from the South Carolina Department of Health and Environmental Control (SCDHEC). SRS representatives included Terry Provost, Brian Hennessey, Joan Baum, Bob Aylward, Coleman Miles, Bill Rajczak, Leslie Huber, Coleman Miles, Jim Clark, Kevin Kuelske, Rita Stubblefield, Eric Schiefer, Clay Jones, Larry Ling, Charlie Anderson, Diana Hannah, Tim Henderson, Mary Flora, and Anne Roe. Members of the public attending included Joe Fehlenbach, Barbara Schiefer, Ryan Schiefer, Erin Kuelske, Wendy Wagner, Paul Huber, Lee Poe, Gerry Stejskal, and Paula Joseph. Gerri Flemming of DOE-SR attended as the Associate Deputy Designated Federal Official (ADDFO).

Mr. Lawless welcomed everyone to the meeting and introductions were made.

Bill Rajczak gave an update on the status of the Independent Scientific Peer Review (ISPR) of the ER Management Action Plan (MAP), which was requested in CAB Recommendation No. 10. The MAP contains an overview status of environmental restoration at the Site; including work completed and work scheduled and the associated costs. It is a concise document which presents Site environmental restoration efforts in broad terms. Mr. Rajczak explained the ISPR of the MAP would be conducted by Joel Massmann's team which previously reviewed another project for the CAB. The MAP document will be reviewed for readability, regulatory value, and technical integrity. Mr. Lawless also requested that the ISPR include comments on what actions the site needs to take so that cost-benefit analyses of projects can be conducted in the future. The statement of work for the ISPR is included in the attachments to this report.

Mr. Rajczak also briefly discussed the WSRC Environmental Advisory Committee's (EAC) review of the SRS Annual Environmental Report as requested by the CAB in Recommendation No. 1. The review is on schedule and should be completed by June 1996 with a final draft review in August 1996.

Mr. Lawless suggested that it would be appropriate for the EAC to give a presentation to the Board on how the reviews are going and the helpfulness of the Boards recommendation and suggestions.

Eric Schiefer, ER N&S Process Leader, gave a presentation on the Necessary & Sufficient (N&S) Standards Process which creates a set of standards tailored specifically to environmental restoration (ER) work and the hazards associated with that work. The N&S Process is compatible with other ER streamlining/cost saving initiatives such as the Approved Standardized Corrective Action Design (ASCAD) process and the Expedited Site Characterization (ESC) process. The N&S process was piloted on the F & H Seepage Basins Groundwater Remediation Project in 1995 and the N&S Policy was approved by Secretary O'Leary in January 1996. Mr. Schiefer explained that the process was now being implemented with other ER Projects with a primary objective being to maintain an appropriate level of safety and to maintain compliance with all laws and regulations.

Mr. Schiefer described the six elements of the N&S Process and pointed out the benefits of a consensus efficient approach, cost savings, and the elimination of redundant standards. Joan Baum added that in the F&H Pilot of the N&S Process significant cost savings were realized. Questions and discussions related to the definition of a nuclear facility and how a closed nuclear facility is turned over to the ER program, the need for independent review of the standards selected, and what type of feedback was being requested on the N&S Process. It was agreed to revisit the issue in August, if there were still outstanding issues to be addressed.

Coleman Miles presented a proposed plan scoping on remedial actions for the Old F-Area Seepage Basin Operable Unit, a two acre unlined seepage basin which received 9-14 million gallons of wastewater from the separations facility. The unit is located in an industrial zone. The contaminants of concern are metals and radionuclides. Mr. Miles explained the remedial investigation conclusions and the resulting remedial action options for treating the contaminated soils, vegetation, and groundwater. The proposed remedial action plan includes in situ grouting of shallow soils and cap (\$1,700,000); institutional controls for the pipeline solid; disposal of vegetation at SRS Burial Grounds (\$65,000); and an alternate concentration limit/mixing zone (ACL/MZ) for the groundwater (\$1,300,000). A Record of Decision on the Old F-Area Seepage Basin Operable Unit is expected by the end of calendar year 1996.

Mr. Miles also discussed a proposed Soils/Debris Consolidation Facility (SDCF) which is currently being studied. The facility design would be somewhere between a hole in the ground or landfill type design and a concrete vault type structure similar to the E-Area Vaults, with the associated costs being dependent on the type of design chosen. The Soils/Debris Consolidation Facility alternative study will evaluate how practicable such a facility would be at SRS. The SDCF study is scheduled for submittal to EPA/SCDHEC in January 1997. Prior to this submittal the scope of the SDCF alternative Study will be discussed with EPA/SCDHEC followed by the CAB ER Subcommittee in the Fall of '96 (probably around September/October).

Questions covered costs, groundwater risks to the public, baseline for reevaluating unit in five years, subsidence issues based on 100 year flood, ranking of the site in terms of budget priorities, acid content of backfill, length of time to remediate, and what would be the cost to remediate to residential standards (app. \$90 million to remove 26' depth of soils and \$13 to \$17 million for groundwater cleanup).

Bill Lawless said he was preparing a motion on the Old F-Area Seepage Basin Operable Unit and it would include wording to encourage shorting the length of time for the remediation cycle.

Bob Aylward, ER Engineering Manager responsible for Feasibility Studies, Proposed Plans, Record of Decisions, and also involved in the generic scheduling of these activities, explained the process schedule for ER waste units. The ER operable units are divided into four groupings based on the nature of the unit:

- No Action Units
- Limited Action Units
- Remedial Action Units
- ASCAD Units

Mr. Aylward explained that historically the schedule cycle times have been reduced from an average of 7 years to 5 years to 3 years. The reductions were achieved by several methods including reducing the review and approval cycle times and implementing the Approved Standardized Corrective Action Design (ASCAD) process. Mr. Aylward described each of the unit groupings:

No Action Units are those units in which the Remedial Investigation/Baseline Risk Assessment (RI/BRA) finds no significant risk (less than 10^{-6}), and therefore a Feasibility Study (FS) is not undertaken for these units. The next step is a No Action Proposed Plan (PP) followed by a Record of Decision (ROD). The costs for No Action units depends upon the number of samples required for evaluation and the amount of documentation required to justify the decision that no remedial action is required. For the Burma Road unit the cost was estimated to be over \$1 million. The risk for No Action Units is generally not significant and the schedule cycle time is 32 months.

Limited Action Units are those in which the Remedial Investigation/Baseline Risk Assessment (RI/BRA) finds a level of risk (10^{-6} to 10^{-4}) that is minimal. Generally, a focused Corrective Measures Study/Feasibility Study (CMS/FS) is performed which considers at least three alternatives:

- No Action
- Institutional Controls and
- One Cleanup Alternative

The FS examines whether it is feasible to do a cleanup. Limited Action Units have a schedule cycle time of 35 months.

Remedial Action Units are those units in which the Remedial Investigation /Baseline Risk Assessment (RI/BRA) finds a significant degree of contamination which may involve several media (soils, groundwater, vegetation) and a cleanup action will be required. A more detailed Corrective Measures Study/Feasibility Study (CMS/FS) is performed which looks at a full suite of treatment technologies and alternatives. The Remedial Action Units have a schedule cycle time of 38 months.

Approved Standardized Corrective Action Design (ASCAD) Units are groups of similar units in which the information gained from investigating the Lead ASCAD Grouping Unit benefits the investigation of the subsequent ASCAD units in the grouping. The benefits realized from the ASCAD process are that since there is a known history from the lead site a more limited, focused, characterization can be conducted and generic remedial actions can be utilized. ASCAD units have a schedule cycle time of 30 months or less.

Questions concerned life cycle costs for each of the four types of unit schedules. Subsequent to the meeting Bob Aylward explained that though these costs could be gathered; since remediation is in the early stages a baseline for these costs has not been established. Currently, there have been one to three completions or near completions for the No Action and Limited Action Units and the Remedial Action and ASCAD Units are in progress and under evaluation. Therefore, any costs at this stage in the remedial life-cycle would have a great deal of variability and would not accurately reflect true life-cycle costs. Other comments concerned whether the ASCAD process could be viewed as not complying with the letter of the law and be viewed as not conducting complete investigations. Bob indicated that while ASCAD provides significant streamlining opportunity, it would allow full compliance with applicable laws and guidelines.

Bill Lawless recommended that the discussion of future issues to be addressed by the subcommittee be delayed since EPA was not in attendance. Copies of the list of issues were handed out and everyone was asked to review and comment on the list. Mr. Lawless said SC DHEC had responded in agreement with the list of issues.

Mr. Lawless covered the plans to discuss the February 26 response letter from EPA and DHEC which in part addressed CAB Recommendation 8 covering Future Use. Mr. Lawless said a joint subcommittee meeting of the ER&WM and the RM&FU subcommittees will be held at 7:00p.m. at the Hyatt Regency Hotel in Savannah, GA on May 13, 1996. Both CAB Recommendations No. 8 and 2, as they relate to land use issues, will be discussed at the meeting.

Terry Provost, DOE Waste Area Group (WAG) manager for radioactively contaminated basins, gave a presentation on the H-Area Retention Basin and the use of a Viscous Barrier Technology at the basin. Mr. Provost covered H-Area Retention Basin history, current conditions, contamination summary, viscous barrier, and schedule and cost. The basin operated from 1955 to 1972 and received waste water from the separations process. Currently the open unlined basin contains water and is surrounded by heavy vegetative growth and is ranked as one of the most hazardous waste sites in the ER program. The primary contaminants are cesium 137 and strontium 90.

Mr. Provost reviewed the viscous barrier technology which will be used to remove the potential adverse impacts to the groundwater and eliminate the impact of surface contamination. The viscous barrier is a colloidal silica gel which solidifies underground, is chemically inert, which forms a water impenetrable barrier, and has an anticipated lifetime of 30 years. Questions and discussions covered cost to reinject if the barrier failed, strength, viability and life of the barrier, and if the technology or similar technology had been used before.

Charlie Anderson discussed the meetings that had been ongoing with EPA and SCDHEC concerning High Level Waste Tank Closure and also the outside independent reviews which have been conducted to date. Bill Lawless requested that a copy of the High Level Waste Tank closure plan be forwarded to Joel Massmann and the Environmental Advisory Committee.

Larry Ling gave a presentation on the SRS High-Level Waste Tank Closure strategic plan including the background, strategy, development of closure criteria, applicable or relevant & appropriate requirements, performance objectives, closure alternatives, and the implementation schedule.

The plan is to close tank 20 first (by December 1996); followed by tanks 17, 18, and 19. Closure alternatives to be reviewed include using no fill material (no action), fill tanks with sand, fill tanks with grout (special grout formula), fill tanks with saltstone (waste form), or remove tanks from ground. The Environmental Assessment and closure plan for the HLW tanks will be available for public review in June; with a public meeting planned for June 11 at the North Augusta Community Center. Discussions covered the type of cement to be used, whether contaminated soil could be used to fill the tank, questions of stability, and performance requirements. A HLW tank closure video will be presented at the next subcommittee meeting and at the next CAB meeting.

The meeting was adjourned at 9:00 p.m.

Note: Meeting handouts may be obtained by calling the SRS CAB toll-free number at 1-800-249-8155.